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ABSTRACT

This report describes an instrument recently developed for profiling self concepts and provides some background through a discussion of the rationale and development of the procedure. The Self Concept Profiling Technique (SCPT) has both a projective and a paired comparisons phase through which are examined five occupational and occupationally-relevant self concepts: (1) self-as-a-person-at-work; (2) the ideal person for my job; (3) my ideal job; (4) ideal self; and (5) self-as-a-person-in-general. It is felt that this procedure permits vocation, with reference to specific occupations, to be empirically investigated. Initial results allow the conclusion that the SCPT has potential value in counseling and guidance, both in a diagnostic and an educative role, and may also be useful in educational and clinical contexts as well as in research. (TL)

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A PROCEDURE FOR THE EXPLORATION OF SELF CONCEPT SYSTEMS

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THE SELF CONCEPTS PROFILING TECHNIQUE:

A PROCEDURE FOR THE EXPLORATION OF SELF CONCEPT SYSTEMS*

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Research in relation to Self and Self Concepts has been inhibited to some degree by lack of adequate instruments or supportive theory. In addition, the whole topic was banished for a while, along with other concepts having a "mentalistic" aura, when Behaviorism came to power in psychology. Activity and interest waned for a time until Allport (1943) revived it by re-introducing the self as a legitimate concept and subject for study.

The report is intended to describe an instrument recently developed for the profiling of self concepts and to provide some background in a discussion of the rationale and development of the procedure. The instrument was designed and developed in close conjunction with a theory of self processes which has been set out in some detail elsewhere with support from the Information System for Vocational Decisions (O'Mahoney, 1968).

The procedure has frequently and less formally been referred to as "O'Mahoney's valuing procedure" or "O'Mahoney's paired-comparisons procedure." I have chosen to label it, the Self Concepts Profiling Technique, or SCPT. It is an attempt to achieve a logical extension into methodology of the model of self concept systems and the ideas about self processes discussed more abstractly elsewhere. In addition, the influence of the works of Murray (1938), Stephenson (1953), and Liggett (1957) are acknowledged.

The Self Concepts Profiling Technique will be discussed in two stages. The first, a projective phase, is directly influenced by projective and Q-methodologies and theories and also by the ideas of Polanyi (1966). The second stage, a more objective phase, utilizes the well-established paired-comparisons technique and makes extensive use of statistics developed for the paired-comparisons method by M.G. Kendell (1962) and H.A. David (1963).

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*A detailed Manual for the Administration of the SCPT is obtainable from the author, Harvard Graduate School of Education, Appian Way, Cambridge, Mass. 02138.

Background

Most, if not all, projective techniques collect responses to ambiguous stimulus situations in a relatively unstructured fashion. It is believed that the way in which the subject perceives and structures the situation, supplying coherence and meaning as and where he sees the necessity, will be observable or inferrable from his responses. Thus, valuable information about the structure and dynamics of the individual's personality and his meaning systems is said to result from projective techniques. This quite probably is true.

However, in almost every projective technique the "raw" responses are processed in accordance with some *pre-established* coding and categorizing schema external to the respondent. Although the subject's own tacit logic and semantics are allowed to freely influence the structure, character and organization of his responses, they are nevertheless eventually subjugated to the logic and semantics of the investigator and the designer of the instrument. (Note: for example, the considerable training required before an individual is considered to be competent in the administration and *interpretation* of the Rorschach or the Termatic Apperception Test.)

The SCPT, on the other hand, explicitly requires and enables the subject to categorize and codify his own responses, thus preserving the integrity of the data and their relations with the logico-semantic bases from which they arose in the first place. It is not suggested that the more familiar procedures are invalid or of little value. Rather, it is suggested that, because of the ways in which data are handled, it is necessary and valuable to be explicitly aware of limits beyond which interpretation should not be pushed.

The Map is Not the Territory

The distinction between an individual's self concepts and the investigator's evaluations and characterizations of them is like the difference between the language used by two communicating individuals and the language used by a linguist or semanticist observer to describe the communication; one is the "real" or communicating language, the other is the meta-language or observer language used in talking about the

communication. In the case of self concepts (or any phenomena studied by projective techniques) the individual's language and behavior may not be perfect reflections of the underlying psycho-semantic structures and organization, but since they are to some extent functions of that deeper logic they are likely to be more representative of it than an outsider's language and behavior. The investigator's analyses and assessments, expressed in terms of *his own* pre-established logico-semantic systems, are meta-language characterizations of the subject's self concepts. They are *not* the *subject's* self concepts.[1] If such characterizations are adequate to the investigator's purposes there is no reason why familiar procedures should not be of value to him. A different rationale is required if a close resemblance to the subject's psycho-semantics is desired. As long as this distinction is borne in mind the investigator will be less likely to equate his and the subject's logico-semantic systems without further evidence and justification.

This is not a new or unacceptable distinction. The Behaviorists, for example, have been aware of it for some time. Speaking very generally, their solution has been to focus their attentions upon the more directly observable behaviors, and to avoid the more equivocal behaviors where the question of subjective meanings arises. The self psychologist, however, is at least tacitly committed to the idea that subjective meaning is an extremely important variable in behavior and attempts to resolve some of the methodological difficulties encountered in studying it as a facet of self process. The investigator in this field who attempts to force-fit the raw responses into his own logico-semantic systems and to pass these on as the self concepts of his subjects seems to be missing the point of his own efforts.

On the other hand, the difficulties associated with the more idiosyncratic or ideographic approach should not be swept under the carpet. One of the more noticeable and, perhaps, embarrassing of these is likely

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1. For further discussion (and references) on this topic see D.E. Super. *Career Development: Self Concept Theory*. 1963. New York: College Entrance Examination Board. 4-5. Also, see C. Kehas. "A Critical Analysis of Attempts to Denote Self Concept." *Harvard Studies in Career Development No. 25*. Center for Research in Careers, Harvard University, Cambridge, Mass. 1962.

to be that of communicating with professional colleagues about the results of investigations of self concepts and self process. The empirical scientist is intellectually and emotionally committed to the gathering of comparable data which will enable him to test specific hypothesis, generalizations and distinctions concerning populations and individuals in relation to such populations. He is liable to become very uneasy when faced with idiosyncratic data about which he is not permitted to assume comparability -- where, in fact, the individual *is* the population.[2]

However, it is possible to live with this kind of problem and, theoretically at least, to get closer to the supposedly "real" situation if the investigator is willing to adapt to his problem. In a sense he needs to take the role of a cryptographer or "code cracker." He must recognize two things. First, the language, grammar, syntax, etc. used by the subject are strongly influenced by culture and custom and contain a logic of their own. The use of good grammar and syntax may, in fact, prevent the subject from "telling it like it really is." Secondly, although the words used by the subject may be very familiar to the investigator they do not necessarily mean (to the subject) what they appear (to the investigator) to mean. By recognizing and accepting these conditions and by putting himself in a "code-cracking" stance, the investigator is much less likely to make facile, and, perhaps, invalid translations into his own semantic system. He is also more likely to question the use of apparently familiar terms and to seek answers in the ways in which phrases and expressions are actually used. He will seek the internal logic, the habits and patterns in the data themselves and will attempt to retain the integrity of the data.

Perception and Projective Techniques

Faced with any stimulus, the individual takes account of it according to his own unique habits of attending and perceiving, valuing, interpreting, distorting and filtering: his Experiencing Style. His beliefs, impressions, assumptions and understandings of the universe, his Universe Concept or World View, also influence his experience and comprehension of

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2. For a discussion of the intellectual and emotional orientations of 'method-centering' and 'problem-centering' scientists and the differences between their methods, see A.H. Maslow. *The Psychology of Science*. New York: Harper and Row. 1966.

a stimulus. The totality of his assumptions, feelings, impressions, beliefs and understandings of himself (his self concepts system) should also be considered as important variables. These three dynamic processes are interrelated and interdependent. Each influences, and is influenced by, the others. Thus, the individual's experiencing or taking-account-of a stimulus cannot be considered to be simply a "mechanical" neurological event depending mainly upon the physical characteristics of the stimulus object and the organism's sensory equipment. The subject's past experience, his present emotional condition, his hopes and plans, his understanding of situation and self and the potential relevance of the stimulus for self, all are likely to be involved to some extent in his attending to, assessing and responding to a stimulus.[3] There are qualities of both interaction and transaction in this situation -- this *intertransaction.*

The complexity of this perceiving process is at least tacitly recognized in all projective procedures and also in Stephenson's Q-methodology.

> "The assumption is made that the individual's organization of the relatively unstructured stimulus situation is indicative of basic trends in his perception of the world and his response to it."
>
> (Selltiz, et al. 1959)

L.K. Frank, the originator of the term "projective technique" saw the technique as involving:

> "...the presentation of a stimulus situation designed or chosen because it will mean to the subject not what the experimenter has arbitrarily decided it should mean... but rather whatever it must mean to the personality who gives it, or imposes upon it, his private idiosyncratic meaning and organization."
>
> (Frank, 1939, 389-413)

Thus, projective techniques operate upon the kind of assumption which Polanyi (1966, 1968) succinctly states thus: "we can know more than we can tell." It might also be said that another assumption, a corollary of the first, underlies projective techniques -- given the right framework people can tell more than they know they are telling.

This, in effect, is what is done in the SCPT. The subject is presented with pictures of people in ambiguous situations (in this case,

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3. For a fuller exploration of the character and dynamics of Experiencing Style, Universe Concept and Self System and the interrelationships referred to here, see O'Mahoney, 1968.

work-situations) and is asked to talk about them as individuals and personalities. He is in effect asked to supply the logic, the structure and meanings from his understandings of people, his universe concept, his experiencing style and his self concept system in order to render the stimulus situation coherent and sensible.

The SCPT Stimulus Materials

When the first prototype of the SCPT was being developed I was not concerned so much with self concepts in general as with self concepts as they relate to career development -- even though I later came to believe that self concepts can not be arbitrarily categorized in this way. For this reason the pictures used were pictures of people in work settings. The choosing of these pictures was not an arbitrary, "I-like-the-look-of-that-one," process. Several questions were given seriousconsideration. These included: How many pictures should be used? What kinds of work situation should be represented? Where should the ambiguities lie -- in the people, or in the work situations? What, in fact, constitutes ambiguity? These, and other questions which influenced the present form of the procedure, have been discussed at length elsewhere (O'Mahoney, 1968) so that a summary here will suffice.

1) Number of Stimuli

The number of pictures to be used was important for two reasons. First, the nature of the paired-comparisons procedure (the second part of the SCPT which also uses the pictures) is such that the number of comparisons to be made is a function of the number of pictures used. Thus, the number of comparisons, x, required when n pictures are used is given by:

$$x = \frac{n(n-1)}{2}$$

Obviously, the number of comparisons rapidly increases as the number of pictures increases. For example, five pictures require ten comparisons, nine pictures -- thirty-six comparisons and eleven pictures -- fifty-five comparisons. As will be seen shortly, the number of comparisons, (a comparison set of "sorting") is only the beginning. The subject will be asked to make one complete 'sorting' (x comparisons) for each concept or

dimension which emerges from the projective part of the SCPT plus additional sortings for each self concept which the investigator wishes to include in the study. Consequently, if the number of concepts/dimensions is 16 and the number of self concepts to be examined is 5, the total number of sortings the subject will have to make will be twenty-one, with x comparisons to each sorting. Economy of time and effort and of the subject's patience and goodwill are adequate reasons for keeping the number of pictures small.

The second reason why the number of pictures was an important consideration was that the stimuli should be as uninhibiting of projection and association as possible. Individual subjects should be presented with a range of stimuli which is as evocative as possible. In terms of work-situations this means that the opportunity to associate with or project towards *any* area of the total spectrum of occupational activities should be inherent in the set of stimuli used. The spectrum of man's occupational activities is wide in scope and rich in detail. Quite obviously one could only sample it pictorially. When coupled with the limiting conditions discussed above the task of selecting pictures becomes quite knotty and the result is destined to be a fairly sever compromise between the desirable and the practical. The answers to questions about ambiguity helped to determine the nature of the compromise.

2) Ambiguity

The focus of the ambiguity in the stimulus pictures could be the people -- as is the case in Liggett's pictorial stimuli[4] or the situation -- as is the case in the T.A.T., or both the people and the situations could be ambiguous. There are reasonable arguments for either of these approaches. The choice depends to some extent upon the purposes the designer has in mind.

In this case, the primary purpose was to get the subject to project in terms of "people characteristics." But, at the same time, it was desirable to limit the scope or "amplitude" of these projections such that

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4. Liggett developed a test procedure (the Liggett Self Valuation Test) which used head and shoulder pictures of people. Ambiguity was introduced during photographic processing, perhaps by printing through frosted or fluted glass.

the "people characteristics" elicited were more relevant to "people-at-work" than, say, "people-at-play." On the other hand, detailed descriptions of the work-situation were not sought. The use of work settings was intended only to create a frame of reference or a set toward the work-world such that, in describing and imposing personalities and characters upon the people in the pictures, the subject would bring to bear his understandings and beliefs about the world of work and the people in it as an integral part of the overall process of relating self to the situations symbolized by the stimuli rather than as primary focus of his response.

In addition, it was argued that people *are* ambiguous phenomena in their own right. That is, the physical appearance of the human being is minimally helpful in revelaing the personality, character and temperament, status or occupation of the individual. Usually, cues such as expression, gestures, language, behavior, dress and environmental context are sought as sources of supplementary information. And, in the final analysis, the interpretation will depend a great deal upon past experience, associations and expectations of the perceiver.

Consequently, it was decided to use pictures in which the ambiguity was related primarily to the work situations so that, although the person could be clearly seen, exactly what he was doing would not be so clear. This would allow a smaller number of pictures to "suggest" broader areas of the spectrum of occupation since the ambiguity, in the situations, would allow the subject to interpret according to his knowledge, beliefs, and expectations of the world of work.

What constitutes ambiguity? Theoretically, the more open and undetermined the boundary conditions of a situation or system the larger the number of different ways in which the closure may be effected. An ambiguous stimulus situation is thus one in which the subject is free to effect closure, or to exercise control over the marginal or boundary conditions of the situation. This he does by supplying structure and logic from his own meaning systems.

Operationally and empirically the question "What constitutes ambiguity?" was answered as follows. Several small-scale empirical studies were mounted which resulted in a) an empirical classification of occupations

which was meaningful to young male students in England and, b) data about the relative frequency with which these students assigned each of 300 pictures to the 24 categories of this classification scheme. In the assignment task the students were allowed to assign a picture to any of the categories which they considered "appropriate" or "plausible" in terms of their interpretation of the pictures. Any given picture could be assigned to any number of categories.

As a result it was possible to determine, by inspection, which category (or categories) a picture was most frequently assigned to by the group and the range of other categories it was associated with and the relative frequency of these peripheral associations. Empirical definitions of "meaning focus" and "meaning range" emerged as a result of this inspection and together these provided an operational definition of "ambiguity". The 300 pictures were sorted in terms of this definition and the group data, and were reduced to a selection of 92 "ambiguous" pictures which were used in one final study -- another assignment task. It was found that several sets of pictures could be selected such that each of the 24 occupational categories were equally likely to feature in the projections of a group of subjects using as few as nine pictures in each set. In other words, the spectrum of occupations was fairly represented by the selection of pictures. The smallest number of pictures that would guarantee this representativeness was found to be nine which, although not small from a paired-comparisons viewpoint, was acceptable.

Importance of a Theory of Knowing to a Theory of Self

Tiedeman and O'Hara (1963) and Field (1962) have argued that the bases for a person's choice may be deduced from a careful observation of the choosing *process* itself. This seems plausible. However, much relies upon the individual's ability or willingness to be explicit and coherent during the choosing process and/or upon the observer's observational bias and the extent to which *his* logico-semantic system is allowed to influence the gathering or coding of response materials. At the same time, Super and his colleagues at Columbia were arguing similarly but in more nomothetic, state-property-type terms. Starishevsky and Matlin (1963) did approach the problem in terms of "languages" and semantics and the

translatability from one language to another. Kehas (1962) similarly approached the self *process* from a semantic viewpoint. Tiedeman and O'Hara also argued in terms of differentiation and integration -- a similar semantic-orienting approach.

Polanyi (1966) elegantly assesses the situation in terms of two different aspects of knowing; tacit and specifiable knowing. And it is in terms of Polanyi's model of the knowing process that projection can be quite usefully discussed. It is impossible, Polanyi argues, for specifiable knowing to exist without tacit knowing, although the reverse does not hold true. Thus, tacit knowing is seen as vital to all knowing.

Tacit knowing is conceived of as being that kind of knowing which is usually thought of as implicit, intuitive, assumed, axiomatic or habit-level knowing. Thus, it would include any predisposition to perceive or attend, to react or to respond to the universe in one way rather than another. It would include such "automatic" controls and coordinations as standing, walking, reading and writing, counting and speaking which, although taken so much for granted by the normal adult, at one time required a great deal of learning and practice to achieve mastery before they became "tacitized". In addition to muscular coordinations and skill patterns, cognitive processes may also result in and depend upon tacit knowing.

In the course of our lives we acquire much knowledge of facts and principles which underlies and influences our subsequent learning and behavior. This too is tacit knowing when it acts as a basis *from* which we attend *to* the universe. The "good" Catholic perceives, thinks and behaves in certain ways in the sure, axiomatic, *tacit* knowledge of the Trinity; the Fascist, equally certainly, "knows" of the inferiority of any ethnic or intellectual group other than his own. Such tacit knowings are rarely questioned at an explicit level by the knower but they exert a strong and pervasive influence upon the ways in which individuals attend and perceive, interpret, evaluate, and respond to situations.

The effects of tacit knowing upon cognitive processes is not restricted only to ethnic and religious perception and thought. The chemist, the physician, the artist and the soldier all behave in accordance with

previous learning and "facts" which they "know" to be true. How often is the specialist in a given field confounded by a child's innocent question "Why?". Facts and principles which he has taken for granted (has known tacitly) for years, which have acted as a basis *from* which to attend *to* more complex matters, may seem to need no explanation. They are truly habit-level, sometimes almost visceral, tacit knowledge.

However, it is not the case that tacit knowledge need always remain tacit. One can shift one's focus of attention from a choice or decision to the bases upon which one made the choice or decision. It is possible to examine the assumptions and axioms upon which a conclusion was based or in light of which an opinion is expressed or a valuation offered. Perhaps with a little more difficulty, it is possible to focus attention upon the sensations and efforts involved in exercising a skill such as walking or writing. But while doing so, it is not possible to retain in *focal awareness* the choice, decision, opinion, valuation or the overall effect and intent of a skilled exercise. This overall knowledge or the knowledge of the integrated or completed complex phenomenon passes into peripheral awareness while other matters occupy focal awareness. This knowledge of one's performance or judgment acts as tacit knowledge *from* which to attend *to* the details of the subsidiary acts, thoughts, purposes, or knowings which made up or contributed to the total unit.

Thus knowings are multi-potential in the sense that they may be the focus of attention (specifiable knowings) or they may be peripheral and supportive of the focusing of attention (tacit knowings). They cannot, at the same time, be both. Specifiable knowing cannot exist without some basis of tacit knowing even though this might consist "only" of perceptual knowings of color, shape, size, etc. Tacit knowings apparently can exist without having previously been specifiable knowings. Polanyi points to evidence in the form of discrimination without awareness or other manifestations of subliminal perception as, for example, in certain types of conditioning. Perceptual learning, in the form of size, distance, and brightness constancies, and many other early-infancy discriminations and learnings might also be quoted.

What is important here is the "from-to", dynamic character of knowing which Polanyi describes, the reliance of specifiable, focal knowing

upon pre-existing, peripheral, tacit knowing. Whether that which occupies the focus of attention be a landscape, a football game, or a selection of cans on a supermarket shelf; a mathematical problem, a beautiful girl or a number of possible alternative job openings, in all cases we attend *to* the phenomena *from* a basis of accumulated tacit understandings of the universe and of ourselves.

Thus we find that the various approaches to the problem of self concepts and occupational choice each have something in common with the Polanyi view of the process of knowing. It can be said that when Super and colleagues talk of translating self concepts into vocational self concepts, the individual attends *to* the world of work and occupations *from* the basis of his tacit knowings of self and the universe. Tiedeman and colleagues place importance upon the processes of differentiation and integration in relation to self and career and, without any distortion of either schema, these processes may be virtually equated with Polanyi's specifying and tacitizing -- with almost identical relationships maintaining. Field's view of self as process and Kehas' semantic approach to self processes also are consistent with the from-to view of knowing. And, to bring us back to the discussion of projection, it is clear that almost every interpretation or application of projective technique implicitly accepts the type of knowing processes Polanyi describes.

Tacit Knowing, Self Process and SCPT

We find, therefore, without much surprise, that similar implicit or tacit understandings underlie the construction of the SCPT. One of the assumptions which can now be made explicit goes something like this: an individual attends *to* other people *from* a basis of tacit understandings which includes knowings of people and knowings of self as a person, accumulated through previous experience, direct and indirect. It is highly unlikely that the kinds of concepts and dimensions which the individual utilizes in differentiating people from environment, and one from another, will be alien to his meaning system and/or have no meaning for him. On the contrary, the dimensions and concepts which he uses are likly to be those which have come to have significant meanings for him. In addition, they are likely to be the same kinds of concepts and dimensions in terms

of which he differentiates himself from others. Those which he utilizes more frequently and in a wise variety of situations are more likely to be those which figure importantly in his self concepts. However, since the particular concepts/dimensions used in evaluating or differentiating people are likely to vary as a function of specific context and purpose, it would be unwise to commit one's self too strongly to the last hypothesis above without first observing behavior in a variety of contexts and situations.

Working from such tacit understandings it seems most reasonable to approach the study of self concepts, initially at least, through a study of what the individual has to say about other people. In this way the meaningful dimensions of the subject's self concepts might be identified and self ratings on those dimensions become possible. This is why pictures of people are used in the SCPT. Having created a contextual "set" we hope to bring to light dimensions which are at least relevant to the subject's occupational life and plans -- his occupationally-relevant self concepts, and then have him make explicit his tacit understandings of himself in relation to these dimension-concepts.

The SCPT: Phase I

Having decided upon our materials we can turn to their use. First the subject is asked to look at a picture and describe the person he sees in it, in terms of personality, temperament and character *as he sees* that individual. He is not asked what occupation is depicted or what the individual is doing and the investigator attempts to offer no clues or leads in this respect. The person, as a *person* is to be the focus of attention. The subject's comments are recorded verbatim with no interpretation on the part of the investigator and no editing or paraphrasing (beyond the omission of "er's" and "uhm's") since this might change the subject's meaning. When the subject is satisfied with his description he is shown another picture and this procedure is repeated until all nine pictures have been described. Then he is given the opportunity to add any additional comments about any of the "personalities" he has created before the pictures are set aside and analysis of the responses begins.

Thus far, nothing has been done which is very different from any other projective procedure. Beyond focusing the subject's attention in a given direction, little has been done to interfere with the order or structure of his response. At this point we depart from usual practices. Instead of taking over the responses at this point and categorizing, evaluating and weighting them according to some pre-arranged schema we leave such analysis to him. *His* logic and *his* semantics prevail during the analysis. He is shown the method but beyond general instructions it is left entirely to him to decide what goes where *as he understands and uses his own terms*. He is, in effect, asked to content analyze his own responses, looking for underlying and recurrent themes and concepts.

Whereas during the projective activities he attended to "people" *from* his basis of tacit understandings, now he is asked to attend *to* his previously tacit understandings -- to look at his responses and focus upon the understandings and assumptions which gave rise to them. His understandings of the stimulus "people", which were previously specified or explicit, may now act as tacit knowing from which he attends to the basis upon which they were previously established. Who better to do this since he alone knows, both tacitly and specifiably, how he *usually* uses the terms and phrases, the qualifiers and the limits beyond which they are not applicable as far as he is concerned? He knows best whether the differences, semantically, between "self-centered" and "boastful", for example, are great enough for him to treat these as two different concepts or small enough to treat the terms as synonymous. Nobody but himself can really "know" whether "outgoing" and "aggressive" fulfill essentially similar semantic roles or functions in his meaning systems, irrespective of social agreements (definitions) about the use of these words. No dictionary or classification system in the world can evaluate or define these idiosyncratic subtleties quite as well as he can.

In the process of analyzing his materials it is likely that he has had to focus upon his semantic systems and his tacit understandings in a fashion which is unfamiliar to him. He may have found that he had to dig deeper than "first level" abstractions to decide whether terms and concepts are really similar or different for him. Thus, this exercise may

in fact continue the projective procedure as well as accomplish the necessary analysis. It may be necessary to organize this procedure into two or three stages with some subjects, working with progressively more abstract ideas until they are satisfied that they have done as much as they can or wish to do in abstracting.[5] When the analysis is completed the subject has identified, organized, abstracted and defined until a list of "concepts/dimensions" is produced. This shows pairs of labels indicating positive and negative poles, or extremes for each concepts/dimensions, as defined by the subject.[6] He is then questioned about his list in order to establish whether he is satisfied with it as being representative of the more important aspects of his repertoire of concepts/dimensions for evaluating and differentiating people. If he feels that any dimension is mainly a product of the pictures used, or for any reason is not representative, he may discard it. He may add dimensions which have not been elicited but which he feels to be important to him. Finally, he is asked to rank the dimensions roughly in order of importance for him -- whatever his definition of "importance".

Since words and symbols constitute, in part at least, a set of conventional signs or shorthand representations of concepts for the purpose of communication, we might reasonably continue our "code-cracker" metaphor a little longer and, in doing so, take the advice of P.W. Bridgman, the Nobel Prize-winning physicist, who remarked, "The meaning of a term is to be found by observing what a man does with it, not by what he says about it." So, as good code-crackers we wish to observe how our enigmatic "alien" really used his code language. We have already collected for ourselves a sample of this language and we have contrived to have him

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5. In the detailed administration protocol (manual) each step of the abstracting/analyzing procedure is included. For some subjects these will not all apply since some individuals go directly to fairly high level abstractions. In addition, it is sometimes found that the subject has become too abstract for his own comfort and has to rework some of his analysis in order to have his concept labels reflect "working concepts" rather than higher level abstractions which resist or confuse practical operations.

6. This process is similar to Kelly's Role Repertory procedure for polarizing concepts. Whether the subject crystallizes out the "negative" or the "positive" term of his concept first he is asked to try to label the other term in order to have a workable "dimension" which can be applied later in the procedure.

manipulate it and say things about it. We have had a little opportunity to observe what he has to say about some equivalences or synonymous relationships. However, we would be much happier -- in fact, we would be delighted, if we could get him to operate in a controlled situation where we can actually watch what he does with some of these terms when faced with what we hope are standardized stimulus situations. If we can see how he *applies* them to the "real world," we have a much better chance of understanding his system of dimension-concepts and we are much more likely to notice differences between his usage of apparently familiar terms and the "usual" (our own) usages.

The SCPT: Phase II

We can do this by getting him to apply the concepts to the people in our pictures such as to "rank" them on each concept in turn. We may then be able to get the subject to rank himself, indirectly, on the same dimensions by comparing himself with each of the individuals. In other words, if the subject values each of the nine pictures in relation to the other eight, on N different dimensions, we will then have 9 N-dimensions stimuli amongst which subjectively determined relationships have been demonstrated. If we then get the subject to order the pictures in terms of "similarity to self," or some aspects of self, we are in effect getting an N-dimensional view of those aspects of self, because we now already know the values of the pictures and the internal relationships in the set for each dimension. Quantifying the relationships is then a matter of statistics.

The method of paired-comparisons is one which allows such subtle "rankings" to be performed very methodically. In terms of our stimuli, picture #1 would be compared with picture #2 and a judgment made in terms of one of the subject's dimension-concepts. He would indicate which "person" was most "ambitious", say. Then picture #3 would be paired with #1, then #4, and so on, until #1 and #9 were paired and judged. Then #2 with #3, with #4, etc., and #3 with #4...until, finally, #8 is paired with #9. It is assumed that if the individual judges A better than B he will also prefer A if the *positions* of A and B are reversed: B, A. Thus, using nine pictures we will have thirty-six pairings only -- the remaining

36 combinations presumably being redundant. By stating thirty-six judgments using one of his dimension-concepts the subject is, in effect, showing what he means by that idea by *using it* as a basis for differentiating Person A from B, from C, and so on. If he is asked to repeat this exercise for each of his dimension-concepts, using the pictures paired in exactly the same order each time, we then have a controlled situation in which differences in preference or application patterns should reflect differences between personal meanings or usages of the concepts and their application to the people in the set of pictures.

The basic idea of joining the projective and the paired-comparisons techniques is, in my experience, due to Liggett (1957). But the value of this arrangement goes beyond the methodological novelty and convenience when we look at it from the point of view of tacit knowing and self process. By the time the subject has applied all of his dimensions to the pictures systematically and is asked to apply certain concepts of self to them he has built up fairly complex personalities for the individual depicted and begins to respond to them as such. (It is surprising and intriguing to actually watch this happening during an administration of the SCPT.) He has evaluated and ranked them in relation to each other on N dimensions which are important to him and which are dimensions in terms of which he would also rate himself. When we then ask him to look at the picture-pairs and decide "Which of these two individuals is most like you *as a person* at work, the kind of person you are in your everyday working life?" He attends *to* the stimuli *from* a basis of methodically established tacit understandings and tacit awareness of the values of the stimuli, and also his tacit understandings of himself. Since he has been entirely in control of the process of defining and assigning dimensions and values to the stimuli, this is a unique and powerful extension of projective/Q-sort procedure.

In his monograph on the paired-comparison method, H.A. David (1963) points out that the method is best used when the objects to be compared can be judged only subjectively and when perceived differences between objects are small or subtle and maximum freedom from extraneous influences is desired.

> "The method of paired comparisons has some advantages (over ranking and rating methods)...when a fine judgment is needed. It should be remembered that *ranking is quick only when differences are fairly apparent....* Nor is it necessarily possible to achieve a wholly satisfactory ranking...(and).... *Rating is liable to be much less successful when differences are small and grades are hard to define.* The simplest form of paired comparisons reduces the area of possible disagreement between judges to a minimum."
>
> (H.A. David, 1963, pp. 9-10, emphasis mine)

Thus, in the opinion of at least one specialist in the paired comparisons method and its statistics, it would appear to be better suited to the task in hand than ranking or rating procedures, being more sensitive to the subtle differences between applied dimension-concepts which we expect to meet. In addition we are able to take advantage of two very useful statistics which have been developed for use with this method.

Paired-Comparisons Statistics and Self Concepts

The two statistics mentioned above are Kendall's (1962) coefficients of Consistence and Agreement (David, 1963). The coefficient of consistence provides an indiex of the extent to which the respondent has been consistent in his application of a concept of dimension through a set of 6 comparison-judgments. The coefficient of agreement indicates the extent of agreement between any two, or more, sets of judgments about the same stimuli. These sets of judgments may represent single applications of separate concepts, or repeated applications of a single concept on different occasions.

This coefficient of agreement is powerful and useful. It will readily be appreciated that the degree of association, statistically speaking, between two or more of the subject's concepts and the statistical significance of this association, may be examined in this way.[7] In addition, using two or more applications of the same concept to the pictures at

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7. It should be noted that *statistical* association or correlation, and significance does not, *ipso facto*, mean that there is a psychological association, or correlation, or significance involved. For the time being I am prepared to make this assumption, as will be noted and discussed later. However, the possibility that this assumption is invalid, and also the possibility of concept-scale interaction (of the type mentioned by Osgood and others in relation to the Semantic Differential) should be examined more closely.

different times, it is possible to examine the stability of the concept, or to check the reliability of the procedure. But much more important at present is the fact that this statistic will allow the association between applications of each of the subject's dimensions, on the one hand, and his concepts of self, on the other, to be evaluated. Thus, he may be asked to look at each pair of pictures and decide which of the people pictured is most like himself as "a *person-in-general*," or as "a *person-at-work*" -- emphasizing that personality, character, etc., are the important factors to consider, rather than appearance or settings. As a paired-comparisons sorting, this is procedurally and statistically, no different from any other and may therefore be used in computing a coefficient of agreement.

If a given self concept sorting, (say for "self-as-a-person-in-general") is matched with the sortings for the subject's dimensions and a coefficient of agreement computed in each case, the result is a series of numerical values representing the extent of association between concept of "self-as-a-person-in-general" and the stimulus personalities as viewed in terms of a specific dimension in each case. Then it is possible to draw up a 'profile' of the concept "self-as-a-person-in-general" upon N scales, representing the subject's N dimensions. The value of the coefficient of agreement fixes the point on each scale at which the subject's concept of "self-as-a-person-in-general" intersects the dimension-concept in question. This could be done for any number of self concepts, or, in fact for any number of concepts of any description. For instance, the investigator might wish to have the subject demonstrate how he would apply such concepts as "successful", "content-in-his-job" or "well developed sense of agency." Other concepts, such as ethnic, occupational or personaltiy stereotypes might also be handled in this way. Thus, the way in which an individual uses concepts like "Mad Russian," "Latin Lover," "Absent-minded Professor" or "Neurotic Female" may be observed by sampling his behavior in a paired-comparisons sort. Then, if sortings for personality, temperament and character-related dimensions have been obtained, the coefficient of agreement will enable the extent of correlation between the complex stereotype application and individual dimension-concept sortings to be computed. A self concept may be considered as a complex multi-dimensional concept like the stereotype.

Multiple Self Concepts

We have talked of Self Concepts and self concept *systems* without dwelling at length on the question of the multiplicity of self concepts and complexity in self-system. This is too big a topic to be dealt with adequately here. However, it is relevant because our concept of "self" and "self concepts" will influence the way in which we ask our subjects to relate themselves to the pictures and how we interpret the results. This writer's view of self process and self concept systems have been set forth in detail elsewhere (O'Mahoney, 1968) and only a very brief statement is appropriate here.

Impressions, conceptions or images of self are numerous and varied in their complexity, level of abstraction, coherence, specificity, and duration. This we know well from personal experience. I have found it useful to think of self concepts as belonging to three general "types" which I have called:

Momentary Self Concepts (MSC);
Policy Self Concepts (PSC); and
Core Self Concepts (CSC).

These may be viewed as three different stages in an evolutionary-type developmental process, the MSC's being the fragmentary, fleeting, situation-specific, concrete knowings of self which may evolve to PSC's through the recurrence of similar situations, feedback and recall, generalization and integration, etc. Policy Self Concepts are more generalized and abstracted, more enduring through time and more related to contexts and roles than to the specific, momentary, concrete situation. PSC's are much like role concepts and tend to guide the relating of self to situations within certain contexts -- like family, work, school, peer groups, and so on. Thus, it might be proper to talk of "self-as-a-machinist," "self-as-a-tennis-player," and "self-as-taxpayer" as policy self concepts in this schema.

Core Self Concepts are relatively old, ingrained, axiomatic and deep rooted; very generalized, abstracted and nebulous, very enduring through time and resistant to change. They are also likely to exercise broadly shaping, molding influences upon self processes. They are very likely to be associated with ascribed statuses of a relatively fixed

character such as sex, age, race and nationality. However, they may also be the result of long-standing developments and evolution of policy self concepts. For example, to the newly-wed male, the concept of "self-as-husband" may be a young and unintegrated policy self concept, whereas to the veteran of forty years of married life, "self-as-husband" is likely to have achieved core self concept status.

With this brief and overgeneralized summary as background, it is possible to state that the SCPT is designed primarily to access some aspects of *policy* self concepts, although at the same time core self concepts may be tapped too. The point to be made is that the writer does not see policy or core self concepts as being independent and mutually exclusive. Characteristics of one PSC at a given time may be shared with others or several PSC's may be related to some aspects of a single core self concept such as "self-as-Male." We should not be surprised to find that some dimension-concepts are important to two or more PSC's, while others seem to be more specifically related to individual PSC's. It has already been noted that one of the assumptions underlying the SCPT is that the dimensions a person uses when differentiating people, one from another and from self, are psycho-semantically significant dimensions for that individual. If this is the case, (and it remains to be proved) then these dimensions are also likely to figure rather prominently in complex self concepts.

Let us suppose that, in the ideal case, the list of dimension-concepts resulting from the 'dimensioning' phase of the SCPT contains all of the psycho-semantically significant dimensions of a person's self concept system. Thus, when he comes to respond to the pictures in terms of the self concept "self-as-a-person-at-work," some, if not all, of the dimensions on his list will be involved in the complex self concept. Since he will by that time have applied each of his listed dimensions to the pictures, he has in effect created a multi-dimensional personality for each of the people in the pictures. Of course, he has not been asked to do so at a specifiable level, but he now has accumulated tacit knowings of each personality (as compared with every other personality) on his N dimensions. Hence, when the person compares his self knowings (both tacit and explicit) with his knowings (both tacit and specifiable) of the pairs of picture-characters in order to decide which of them is most like self

as person at work, he is demonstrating the extent to which his self-at-work concept and his picture-character concepts agree. This, then, is another of the assumptions underlying the SCPT.

If our subject's job happens to be auto mechanic, we do not know how many of his self dimensions are actually involved in his concept of "self-as-auto-mechanic." But since he probably has to assess the picture characters in terms of his understandings about being an auto mechanic and people he knows who are auto mechanics, and since to do this he will probably also take into account his carefully accumulated tacit and specifiable knowings of these picture characters, then it is reasonable to suppose that we obtain some indication of the extent to which each dimension is involved in the complex self concept by comparing the subject's sortings for each dimension with his sorting for "self-as-auto-mechanic." Thus, if we find some measure of agreement between the subject's sortings on his dimensions "Practical Intelligence," "Meticulous" and "Friendly," among others, and the sorting for "self-as-auto-mechanic" then we will feel that those dimensions are to some extent important in the subject's concept of himself as a person at work.

By using the paired-comparisons method, it is possible to obtain just such a measure of agreement between sortings. The coefficient of agreement statistic provides a single numerical index of the extent of agreement between any two sets of sorting responses. In addition, the statistical significance of the coefficient may be tested, thus enabling us to decide to what extent the amount of agreement found might be expected if we assumed chance or randomness of response to have been responsible for the particular sets of sorting responses being compared. We may, thus, formulate a tentative operational definition: whenever a coefficient of agreement between the self concept sorting and a dimension-concept sorting achieves statistical significance at or beyond the $p = 0.05$ level, this will be taken to indicate that the dimension-concept in question is an important variable in the particular self concept. This means that, even though the listed dimensions are all supposed to be important in the individual's self concept system, the paired-comparisons method and the coefficient of agreement statistic will make it possible to determine

whether or not the dimensions are equally important variables in different specific self concepts.

We return, then, to the topic of multiple, multi-dimensional self concepts in the self concept system. We have already seen that it is more likely that people will have multiple self concepts, in relation to the multiple roles and contexts in which they function, than that they will have but a single self concept for all occasions, roles and contexts. With regard to the dimensions of each of these multiple self knowings, there is no good reason to suppose that each self concept is mutually exclusive of the others. Just as many kinds of cakes and pastries may be baked with a few basic ingredients and additional, specific ingredients and processes to achieve different special kinds of cakes, so it is possible for many self knowings to involve certain similar dimensions as well as some which are unique to each self concept.

It was said earlier that if some measure of agreement between a self concept sort and a dimension sort was found, this would be taken to indicate that that dimension was to some extent important to the self concept. Later this was modified in the operational definition by saying that a coefficient of agreement which was statistically significant at or beyond the $p = 0.05$ level would be accepted as an index of an "important" (psycho-semantically significant) dimension for that self concept. The point to be made here is that the criterion of *statistical* significance is a somewhat arbitrary one from the psycho-semantic point of view. It is possible that a dimension which is very important in self-system may be involved in a given self concept to only a small extent but have an important effect upon the overall tone or character of that self concept. In terms of our baking analogy, only a very small amount of some special ingredient, such as vanilla essence, can make a great deal of difference to the flavour of the cake. But, to begin with, we need some criterion for the operational definition.

Occupations as Contexts for Being-Becoming

If we think of self as continual process, on-going in a variety of contexts, it is much easier to avoid the common tendency to think of "*the* vocational self" as an independent and mutually exclusive development. The

world of work in general, and a person's occupation and job in particular, are then seen as merely specific contexts for Being-Becoming. The point to be made is that it may be possible to differentiate quite clearly and sharply between different contexts in terms of time, geographic locations and environments, procedures, and so on, but the organism which moves from context to context cannot be so sharply differentiated. Although a person's "work context" may be kept entirely separate (in time and location, etc.) from his "play contexts," it is not so easy to separate the work-self from the play-self for there is continuity and continual procession in Being and Becoming. The "boundaries" of self concepts are not fixed and immutable, and the boundary conditions may be closed in many different ways depending upon contexts and higher order principles such as purpose.

For this reason, speaking of *the* vocational self, as if each individual develops a single concept of self in relation to the work-world context and as if, once developed, this concept persists in essentially the same form, seems to subtly but definitely deny the multi-potentiality, multiplicity and flexibility of self knowings and the continual on-going character of self process. No matter how any of my comments might be interpreted, I do not believe that it is appropriate to think in terms of a "vocational" (occupational) self concept which is independent or mutually exclusive of other kinds of self concept. The Jekyll and Hyde implications of such a concept do not fit too well with the integrated, continually on-going, process view of self.

Elsewhere (O'Mahoney, 1968), I have argued that occupationally relevant self concepts are somewhat resultant in nature, that is, they derive from and develop within a framework established by prior tacit knowings of self. Thus, aspects of several different kinds of self concepts may come to have occupational relevance -- such as "self-as-male," "self-as-*my-father's*-son," "self-as-a-person-who-enjoys-nature-and-the-outdoors," and so on.

As with the development of any policy self concept, that which emerges as a guide for relating self to the world of work, in the specific context of a given occupation, will be the result of differentiations and integrations amongst self knowings and knowings of the world. During this

process, the emerging PSC will be shaped by pre-existing PSC's and core self concepts (CSC's) and by habits of experiencing, valuing, and interpreting (Experiencing Style). Thus, in many ways, an occupational PSC is likely to be a derivative of prior self process as well as the specifics of experience and contact with the work-world at the time when the individual is "choosing" an occupation. For this reason, the choice of occupation is better thought of as a time-extended *process* in which many prior decisions, choices, preferences, and time-effort investments contribute to the character and form of the final commitment which is usually referred to as choosing or choice.

If a young male has some fairly clear-cut impressions of certain jobs or occupations as being "feminine" and discounts them as valid alternatives for him on the basis of his concept of "self-as-male," then it can be said that "self-as-male" is a self concept which has occupational or vocational relevance for him. In a similar way, if his Ideal Self concept includes being like his father in certain ways which influence his relating of self to the world of work, then "self-as-my-father's-son" or "ideal-self" may be said to have some occupational relevance.

The world of work is simply another context in which Being-Becoming, or self process, takes place. Also, it should be clear that "the world of work" is really a particular way of looking at the world in general. As individuals, in our non-work activities, many of us engage in activities for which other people, somewhere, are paid a regular salary. What is "work" and what "work" means differs from individual to individual. The individual's concept of the universe and his experiencing style as well as his self concepts systems play a large part in determining his concept of "work" and his ways of relating self to the "work" world. In this sense, too, occupational self concepts are derivative or resultant.

In one other sense, an occupational self concept may be derivative. The ways in which an individual relates himself to the world of work may be significantly influenced by his economic, familial, politico-religious commitments and aspirations. His "life style," or desired life style, may exert influences upon his relating of self to work-world such that otherwise desirable or valid alternatives have to be denied or foregone.

Primary and Secondary Occupational Self Concepts

Thus far, terms like "vocational", "occupational" and "work-world" have been used rather loosely and this makes for some confusion in talking about self process in the context of work. I will attempt to clarify some of my term-referent associations.

To begin with, I find it useful to think of a person's concept of the world of work as being a sub-set of his universe concept. As such it can be considered simply as a special case when we talk of the process of relating self to universe in the context "work". Thus, the influence of experiencing style upon the perceiving of and relating to the work-world may be considered as being essentially similar to the general case as described by O'Mahoney (1968). Thus, the individual's concepts, impressions, and beliefs about particular occupations are part of his universe concept, and his habits of perceiving, attending, interpreting, ingoring and evaluating (his experiencing style) have influence upon the initial emergence of these concepts and upon the ways in which they are brought into relation with self knowings at that time and subsequently. At the same time, self concepts have an influence upon experiencing style and upon feedback into universe concept and emergent self concepts. Thus, we are dealing with a process comprising mutually interdependent sub-systems.

Consequently, facts and data about the world are operated upon by experiencing style which in turn is responsive to self knowings which, in their turn, are developed in relation to prior and current understandings of self in relation to the universe. With so many complex and subtle feedback, feedforward and filtering mechanisms and process operating in the system, it is patently inadequate to conceive of a single "occupational" or "vocational" self concept as an independent development in the normal course of events.

Nevertheless, there is good reason for our thinking in terms of the individual having a concept of himself as a person at work in his own job or occupation. For this reason, I find it useful to talk in terms of the individual's "current, primary, occupational self concept" as distinct from his concept of "self-in-relation-to-the-work-world-in-general." "Current" implies that change is possible and "primary" is intended to

imply that it is possible for secondary occupational self concepts to exist. These would comprise all the more or less well developed knowings of self in relation to other occupations than the current one. It is possible for the overall affective tone -- the feeling tone of any self concept to be either positive or negative. Thus primary or secondary occupational self concepts may be either negative or positive in their feeling tone.

It is usually expected that, when an individual "chooses" an occupation he will do so in such a way that the general, overall feeling tone, (the sense of rightness or fit between self knowings and world-of-work knowings) will be positive. In other words, it is not usually expected that an individual will choose a job which he feels is wrong for him or which he expects to dislike -- unless he has a specific reason for doing so. Thus, we tend to expect that the "sense of fit" existing when self knowings are brought into relation with knowings of chosen occupation will be positive and stronger than when other occupations are considered. We then continue to expect that the policy self concept which emerges in relation to that chosen occupation will be positive in its overall feeling tone. Thus, current primary occupational self concept is usually expected to be strongly positive in character while it is accepted that secondary occupational self concepts (concepts of self in relation to non-chosen occupations) may be of either positive or negative, strong or weak feeling tone. Generally speaking negative feeling tone in relation to non-chosen occupations is supportive of the primary occupational self concept in much the way that dissonance reduction supports a choice or decision. On the other hand, positive affect associated with secondary occupational self concepts may effectively weaken or conflict with primary occupational self concept.

This conflict between the positive affect of secondary and primary occupational self concept is likely to be greatest when the strength of the feeling tone is approximately equal and when the occupations are different enough to be mutually exclusive in some or all aspects. When the respective occupations are similar in many aspects there is usually much more possibility that the individual can eventually achieve a compromise which includes some aspects of both occupations — at least in a mobile social system.

In addition to these specifically occupational self concepts, it seems worthwhile to talk of "occupationally relevant" self concepts. These are the non-occupation-specific knowings of self which nevertheless influence the relating of self to occupations and to the work world generally. Amongst these may be "self-as-male/female", "self-as-intelligent", "self-as-inventive", "self-as-sociable" or any other self concept imaginable. The point is that trying to predict which self concepts, or which aspects of some self concepts, will come to have occupational relevance is a frustrating pastime in the absence of specific instances -- i.e., specific individuals or self processes.

So far we have talked about concepts of "work" and the "world of work", about self in relation to the world of work in general and specific occupations, and about concepts of self which have occupational relevance as they might influence any of the above (either directly or by way of experiencing style). These aspects of occupation-choosing and relating self to work are the everyday grist for the vocational/educational counselor's mill. It may have been noticeable that I have deliberately avoided mention of "realism" and "vocation" as far as possible. I would like to tackle those topics now.

Realism in Relation to Universe Concepts and Self Concepts

Usually, when talking self process I tend to consider whatever the individual believes, feels or knows to be true or real, as being "reality" for him at that time. This is true no matter what he may think or feel later. In casual terms, the subjective reality which he responds to at any given time is the important consideration. The "objectivity" or "realism" of this subjective reality is a secondary question.

Thus, a counselor or teacher, parent or employer may be exasperated or depressed by an individual's insistence that a given job is "right" for him. In effect the individual is expressing his sense of the fitness which he gets when he brings *his* knowings of self into relation with *his* knowings of the universe in the context "work" or "occupation" or "job". The exasperation (or depression) on the part of others apparently reflects a divergence between what the individual believes and feels to be 'real' and what the 'others' believe and feel to be real as far as the universe and the individual are concerned.

There are several ways in which such discrepancies may be reduced. The individual may be persuaded to change his concept of the universe (work-world) and/or his style of experiencing, interpreting and evaluating it in relation to self and/or his concepts of self and/or his style of making decisions. The counselor, educator, employer and the parent are in somewhat different positions with regard to their potential influence over each of these processes. However, it is probably as bad for them to blindly apply *their* unquestioned beliefs about reality as it is for the individual whose "realism" they are trying to change (or "improve").

The general point, however, is that understanding of the processes, the very subtle and complex self-sub-processes, which underlie and support an occupation or job choice may vastly improve the effectiveness of counseling, teaching, parent-advice or guidance or hiring and utilization of skills and ability. If it is possible to trace the lack of agreement about reality to universe concept, experiencing style, self concept or decision-making processes, it should be possible to decide on rational grounds whether information about the world, work visits, experience, remedial education, decision-making instruction, simulation, self evaluation and objective testing, or even therapy, are most appropriate means. It should also provide an opportunity for the adviser/counselor to reevaluate his own view of reality in terms of its relevance to this specific case.

The counselee's response to and acceptance of the attempts to change his "reality" may depend greatly upon the particular mode and approach taken. In general it would seem that the easiest approach would be by way of information (or, more precisely, facts and data). If the facts and data are relatively neutral vis-a-vis the self knowing and experiencing style, purposes and goals of the individual, it is probable that slight but cumulative changes in universe concept may be achieved which will eventually have effects upon self concepts, decisioning and experiencing style. However, many facts and data pertain to phenomena and areas of the universe concept which are value-laden and are closely interrelated with experiencing style and self system. Examples of such may be found associated with ethnic, religious and ideological beliefs and meaning systems where self concepts and universe concepts may be so closely inter-related and experiencing style have become so adapted to defending

the other systems from contradiction and invalidation that the simple presentation of facts and data about the world will have little impact of a positive character. In such cases the processes of contact, experience, feedback, and so on (propaganda, brainwashing, indoctrination, therapy) may be much more effective since they tend to bring about changes in experiencing style and universe concept by affective and associative rather than verbalized logical and rational means. As the educational world is finally coming to *accept*, there are more ways than one of presenting facts and data to an individual. The emphasis upon individualized learning tacitly recognizes the idiosyncratic character of the universe concepts and experiencing styles of the learners and the need to present facts, data and experiential opportunity in ways which will be allowed through the filters of experiencing styles.

Thus, in considering the realism or otherwise of an occupational choice or preference, or a primary or secondary occupational self concept, or an occupationally-relevant self concept more than a consensus of opinion about reality needs to be taken into account. This is even more true if the intent is to change one of these features of self-universe relationships.

The "Sense of Fit" among Multiple Work-Relevant Self Concepts

In distinguishing concepts of work, occupations, jobs, from concepts of self in relation to these contexts, and in distinguishing between occupational self concepts and occupationally-relevant self concepts I talked in terms of the feeling tone of the relationship between self knowings and sub-sets of universe knowings. The term, "sense of fit" or "rightness" was used. If the "fit" was not good or did not "feel" right the feeling tone would be negative, a good fit would have a positive feeling tone about it. The worse or better the fit the stronger the negative or positive feeling tone. Thus, we can talk of an individual having a strong, positive sense of fitness when his self knowings are brought into relation with his knowings of an occupation and he feels that there is no contradiction or discrepancy when he imagines himself Being-Becoming in that context.

At this point I find it useful to use the term "vocation" since it is now possible to use it in a fairly specific fashion and to distinguish

it clearly from occupation. All too frequently, in the literature of counseling and guidance, "occupational" and "vocational" are used interchangably. Thus, "vocation" will be used here to refer to: "the sense of fitness existing when knowings of self are brought into relation with knowings of the universe in a context of occupations and work." In this way we may talk of strong positive vocation or of mild negative vocation in relation to a given field of work, occupation, or job.

In this sense, then, a person may have, experience, or develop vocation in relation to many specific defined occupations or positions in the work-world. In each case we may find Polanyi's model of knowing to be exemplified in that the person's particular specifiable knowing of "self in relation to (a specific occupation)" is likely to be based upon many and various tacit understandings of self and universe and of relationships and consequences. Even though he is not focally aware of these knowings influencing his reactions, nevertheless, they contribute to the feeling and the focal awareness he has of self in relation to this aspect of the work-world. This is not to say that he is unable to bring these peripheral, tacit knowings into focal, specifiable awareness. In many cases he can do so, after having made a choice or stated a preference or opinion. But at the time of prefering, choosing and opinioning these are usually not in focal awareness. By shifting his attention from the specifiable (the stating of a feeling or preference) to the previously tacit in order to examine the bases for his response, he will often succeed in tracing some of these influences -- bring them into specifiable, focal awareness.

Thus, if a young man is asked to consider nursing as an occupation alternative for himself and rejects it as an inappropriate alternative (i.e., he has a strong negative vocation in this direction), many different aspects of universe concept and self concepts may be functioning as tacit bases for his response. Let us suppose that he understands the occupation to be an exclusively female one. He has nothing against females, but to consider himself in the role of nurse creates a conflict with his strongly developed concept "self-as-male." In addition, he conceives of nursing as requiring the nurse to come in close contact with wounds, blood, and excrement and to be aware of pain and suffering in others. Perhaps knowings of self as being made very uncomfortable by the pain and suffering of others

and perhaps also as being repulsed by putrefaction, blood, and excrement, all contribute to a strong sense of contradiction and revulsion. The overall feeling tone of this bringing of self knowings and universe knowings into relation is a quick and decidedly strong negative reaction. This is not to say that he despises or relates negatively to the occupation in general terms (though he may) but rather that he does not feel that it is an appropriate alternative for *him*. This will be true whether or not his concept of nursing is realistic in the view of others. The strength and value of vocation in relation to nursing may be modified by information or experience but it may never get to be strong, positive vocation. On the other hand, his vocation in relation to "Boy Scout Leader" or "Probation Officer" or any other helpful, supportive role which he sees as "masculine", "clean" and "enjoyable" may be strong and positive. If he sees such roles as being closely related to nursing the story may be different; they may not be viewed as "masculine", for instance.

Thus, we can see implicit in this example the potential complexity of the interplay between occupationally-relevant (self as male, for example) and secondary and primary occupational self concepts. It is possible that some occupationally-relevant self concepts will, for many individuals, have a broadly orienting influence in relation to the world of work as conceived by those individuals. Broad categorizations such as male-female work, routine-creative work, menial-responsible work, etc., may be related to experiencing style and apparently non-occupationally oriented self concepts. The problems of the counselor, guidance worker, rehabilitation worker or anyone who deals with individuals experiencing difficulties in choosing, finding, or keeping a job, are those associated with analyzing the problem in terms of what the individual assumes, feels, believes, or knows himself and the universe to be like and his styles of experiencing and choosing or deciding. If the counselor/therapist is able to analyze the problem in these terms and pinpoint discrepancies within this system or between this system and the external consensus of opinions about reality then he is in a powerful position to effect change or compromise. To do this, an instrument which would provide an index of the value (positive or negative) and the strength of vocation in relation to given occupations would be a powerful tool. The Self Concepts Profiling Technique can do this.

The SCPT as an Instrument for Evaluating Vocation

It was earlier mentioned that the coefficient of agreement statistic for paired-comparisons was powerful. Besides allowing an index of association between a given dimension sorting and a self concept sorting, it may equally be applied to two, or more, self concept sorts.

In the context of vocation, it may be used to give an indication of the extent of agreement between self concept sorts and occupation concept sorts. In fact, this was one of the analyses performed with the data from the pilot studies using the SCPT. Thus, "self-as-a-person-in-general" and "Ideal Self" sortings were compared with "Role Ideal for my own Job" and "self-as-a-person-at-work" and "ideal-job-for-me" sortings. In addition, with a little more statistical complexity, a single coefficient for the overall agreement between the five sortings was obtained. In this way, the overall or generalized vocation, as well as vocation in relation to specific occupations concepts and occupational self concepts, were measured.

The coefficient of agreement may take either a positive or negative sign value, indicate close agreement (or fit), or disagreement (divergence). In addition, the numerical value of the coefficient indicates the strength of the association in either direction. The cut-off points for statistical significance at $p = 0.05$ and $p = 0.01$ may be used as cut-off points for assigning ratings such as "strong", "mild" and "weak" or "negligible".

This facility may eventually prove to have value to counselors and guidance personnel despite the present length of the SCPT. For those individuals who are dissatisfied or maladjusted in their current jobs it is possible to find pointers, sometimes very clear indications, to where the difficulties lay within the matrix of related self-occupations concepts. Sometimes the dimensionality of the concepts, the feeling tone and the "realism" of them may be the problem. In other cases, in getting to know the realities of the job by Being-Becoming in that context, the incumbent has had to change his pre-job beliefs or knowings of either or both self and job to such an extent that he now has developed a negative vocation in relation to his job.

In the case of an individual who has not yet entered the world of work and is having extreme difficulty in selecting among equally attractive (strong vocation) alternatives, or in crystallizing any alternatives, the

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In the case of an individual who has not yet entered the world of work and is having extreme difficulty in selecting among equally attractive (strong vocation) alternatives, or in crystallizing any alternatives, the SCPT may be useful too. In the first case, the approach-approach conflict, sortings for the alternative occupations may be conducted and profiles drawn and compared both with each other and with Ideal Self and General Self, etc. This can be done in terms of the dimensionality of the concepts: are they equally attractive on identical dimensions or is the vocation centered on differing dimensions in different concepts? On the other hand, the coefficients of agreement between self concepts and occupations concepts may indicate whether the strength and value of vocation is accounted for by agreements with Ideal Self in some cases, and Self in General in other cases. Finally, the profiles for the various self and occupations concepts may provide clues upon which the counselor may decide whether re-education of occupational information, or re-evaluation of self and therapy are called for.

More sophisticated statistical techniques, such as factor analysis or canonical correlations, may be feasible and increase the utility of the SCPT data. For the time being the interpretive and diagnostic promises of the procedure look encouraging and its heuristic values for the individual should not be overlooked.

RELIABILITY AND VALIDITY OF THE PROCEDURE

The following remarks concerning reliability and validity should be treated as tentative only. The pilot studies, using the prototype procedure, were not specifically designed to test these important aspects of the instrument. However, some encouraging indications came to light as the procedure proved to be viable. These are described here since some attention should be paid to such characteristics of an instrument, however meagre the evidence. More methodical and specific investigations of validity and reliability are being planned and should be implemented during the fall of 1969.

Reliability

If the theory upon which the procedure is based bears no correspondence to actual behavior then the procedure should:

a) prove to be unreliable, or

b) be reliable, but yield dimensions which relate to other, apparently related dimensions, in ways which are little different from what might be expected by chance..

In the unreliability case, (a) we would expect to find that the dimensions elicited by the procedure would not be acceptable to the subject as representative of the dimensions of his self concepts any more frequently than could be expected if we assume nothing more than chance causes. Thus, we would expect his responses in the paired-comparisons part of the procedure to be essentially random in character if the dimensions used have no particular significance for him. This fact would be reflected in the coefficients of agreement for the sets of 36 pair-wise comparisions. The individual should be as frequently inconsistent as he is consistent. Thus, one form of reliability is the consistent application of a concept among many opportunities for the expression of that concept. Another point, of course, is that the subject could reject dimensions on the list before going on to the paired-comparisons procedure. The evidence relating to reliability of this type is supportive and is discussed more fully in the following discussion of validity.

A second type of reliability would be reflected in the ability of the procedure to produce similar results on two or more administrations. Of

course, the questions of learning and recall have to be considered in testing this type of instrument reliability. In this case, it is argued that the paired-comparisons phase is complex and indirect enough (in relation to the self concept profiles) for these problems to be minimized. In the studies conducted with the prototype procedure, the projective phase was conducted only once, during the first administration. The dimensions elicited were then used for both administrations.

Test-retest reliability was checked by calculating the coefficient of agreement between first and second response matrices for a given concept. This was not done for every dimension but only for the self concepts response matrices. Thus, "Self-in-General" (test) was matched with "Self-in-General" (retest) and the coefficient of agreement computed, and similarly for each of the other self concepts.

As Table 1 shows, the reliability for the group rated "high" on vocation is generally higher, and more consistently so, than for the 'Average' and 'Low' groups. Also, the 'Average' group coefficients are generally higher and the values less viable within the group than the 'Low' vocation group. Nevertheless, only 7 of the 74 available data failed to achieve significance at or beyond the $p = 0.05$ level. Thus, 90.5% were so significant and 82.4% were even significant beyond the $p = 0.01$ level.

It is stressed that these are only indications. The pilot studies were designed mainly to see if the procedure would work as a procedure and were not set up as stringent reliability tests. Such tests are currently being planned, particularly to check the reliability of the projective phase of the procedure.

Validity

In discussing the validity of test procedures, Thorndike and Hagen (1961) liken the testing of content validity to the careful checking of the instrument or artifact against the blueprint with reference to which it was constructed. In this instance the analogy is an appropriate one since a blueprint was established in the form of a rationale derived from theory and care was taken to ensure that the administration protocol of the procedure followed the rationale closely.

As far as logic and inspection will allow, the instrument appears to adequately and truly reflect and embody the constructs and theory upon

TABLE 1

RELIABILITY AS INDICATED BY COEFFICIENTS OF AGREEMENT
BETWEEN SELF CONCEPTS FROM TEST TO RETEST

SUBJECTS		SELF IN GENERAL	SELF AT WORK	IDEAL S.C.	IDEAL JOB	IDEAL FOR OWN JOB	GROUPS AS RATED RE: VOCATION
1[b]		0.78	0.89	0.89	0.84	0.84	
2[b]		0.84	0.89	0.73	0.95	0.95	
3		0.73	0.84	0.61	0.89	0.89	HIGH
4[b]		0.84	0.84	0.89	0.89	0.89	
5		0.89	0.73	0.89	0.73	0.67	
6[a]		--	--	--	--	--	
8[b]		0.73	0.73	0.78	0.67	0.67	
7		0.73	0.89	0.78	0.95	0.95	
10		0.89	0.84	0.84	0.89	0.84	
9	!!!	0.84	0.33**	0.73	0.89	0.50*	AVERAGE
11		0.89	0.73	1.00	0.73	0.78	
12	!!	0.61	0.39**	0.45*	0.69	0.39**	
16	!!	0.84	0.55*	0.73	0.78	0.50*	
13		0.39**	0.67	0.61	0.45*	--	
14[b]	!	0.89	0.11**	0.51*	0.17**	0.17**	LOW
15		0.78	0.78	0.78	0.73	0.73	

[a]No retest data available for this subject.

[b]Case in which subject named own job as 'Ideal Job', thus 'Ideal for own Job' matrix is same as 'Ideal Job' matrix.

*Significant at 0.05 level.

**Not significant at 0.05 level. All others significant at or beyond 0.01 level.

!Subject has three part-time jobs in addition to full-time job.
!!Subject recently attempted to change occupational field, and failed.
!!!Subject in process of changing jobs and settling in. Same occupational field.

which it is based. It also appears to do what it is intended to do: to elicit into specifiability the important psycho-semantic dimensions of a selected group of potentially occupationally-relevant self concepts, to utilize these dimensions in such a way that their applicability (or their meanings in terms of usage) are demonstrable in relation to the stimuli, and, finally to obtain comparable data by demonstration concerning the self concepts themselves such that the relationships between self concepts and dimension concepts may be demonstrated and examined in statistical and graphic-profile form.

Built into the procedure, at the point where the subject is asked to modify or accept the list of dimensions, is a test of face validity, or "credibility". Since 14 of the 16 subjects accepted the dimension lists without changes (approximately 240 dimensions were involved) and the remaining two subjects eliminated only one dimension each, as being not sufficiently important to retain on the list, there is evidence to support the claim that the projective dimensioning phase of the procedure has face validity. This is strengthened by the fact that only one subject (on *one* dimension, on one test administration) was unable to apply a dimension consistently enough over 36 comparisons to satisfy the basic minimum criterion for consistency -- a coefficient of consistence having a value of at least 0.52 ($p = 0.05$). Thus, in only one, of almost five hundred instances, did an individual show less than demonstrable consistence applying a dimension elicited by the first part of the procedure. In fact, the working criterion applied was much more stringent. A coefficient of consistence of 0.65 is significant at the $p = 0.01$ level, but for practical purposes this was still too inconsistent.[8] An arbitrary, minimum workable value for the coefficient was set at 0.83. If a subject failed to achieve this degree of consistency he was asked to repeat the sorting. Even with this much more stringent criterion less than 10 sortings had to be repeated in addition to the exceptional case already mentioned. Although one or two individuals were characteristically less consistent than the rest, the greatest majority of sorings yielded coefficients of 0.91 or more and

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8. See O'Mahoney 1968, pages 551-559, for a more complete explanation of this point.

most subjects were perfectly consistent throughout. Thus, it would appear that the dimensions elicited and listed by the first part of the procedure are certainly meaningful to the individuals to the extent that they can apply them consistently through 36 judgments of complex, paired-stimuli.

Additional "credibility" evidence was found in the subject's responses to the profiles of the self concepts. Almost without exception the subjects accepted the profiles and the investigator's attempted interpretations of them, as being quite close approximations to their own ways of "seeing" or feeling about themselves, although none had ever attempted to specify their understandings in quite such a systematic and explicit fashion. Most of the exceptions consisted of the subject's feeling that he had a better understanding and interpretation of the profile relationships than the investigator. On only two occasions did inquirers challenge the relationships shown in the profiles. The profiles were overwhelmingly accepted as "feeling right" -- (in the words of two subjects, both psychologists). Beyond these encouraging indications, the only systematically gathered data relating to validity is to be found in the attempt to test the hypothesis that vocation is related to the intercorrelations among occupationally-relevant self concepts. Despite the small size of the sample and the fact that it was not selected solely and specifically for the purpose of a validity study, the results are strongly supportive of the hypothesis (see table 2). Since an alternative criterion[9] was used, the evidence may be considered as contributing to the establishing of the procedure's validity -- if only in small measure. Methodical validity and reliability tests are currently being planned.

FROM PROTOTYPE TO GENERAL PROCEDURE

Different Policy Self Concepts and SCPT Variations

The prototype SCPT described here is occupation-specific in one sense. The stimulus materials used were chosen expressly for their occupational connotations with the intention of increasing the probability

9. Three independent judges rated the subjects in terms of vocation, working with a careful description and definition of the concept and a list of probable observable correlates.

TABLE 2

COEFFICIENTS OF AGREEMENT FOR SELF CONCEPTS
TAKEN FIVE AT A TIME.
ANALYZED BY RATINGS OF VOCATION
AS HIGH, AVERAGE AND LOW

SUBJECT	PENTAD COEFFICIENT	GROUP MEAN	GROUP STAND. DEV.	VOCATION RATED	VOCATION OBSERVED	
1	.81			H	H	
2	.89			H	V-H	
3	.72	.77	.11	H	H	HIGH GROUP
4	.89			H	V-H	
5	.72			H	H	
6	.60			H(M)	M(H)	
8	.48			M	M	
7	.50			M(L)	M	
10	.52			M(L)	M	AVERAGE
9	.44	.48	.07	M-L	M	GROUP
11	.38			M-L	M-L	
12	.45			(M)L	M	
16	.63			(M)L	M(H)	
13	.24			L-M	L	
14	.21	.17	.09	L	L	LOW GROUP
15	.06*			L	V-L	

*Not significant at 0.05 level. All others significant at, or beyond, p = 0.05 level

that occupationally-relevant self concepts would be brought into functional primacy within the self-system. In terms of the views expressed earlier concerning the role of tacit knowing in projection and experiencing it is believed that, with occupationally-relevant self concepts in functional pre-eminence within the self-system, they are much more likely to function as the tacit terms of knowing while the individual focuses upon the personalities of the people in the pictures. In this case the dimensions of personality, temperament or ability which the subject attributes to individual people will more probably be occupation-relevant than would be the case if some other self concepts, say "Self-as-lover" or "Self-as-sportsman", were operating as tacit knowings. However, the procedural rationale is by no means restricted to this particular embodiment. One obvious possible variation has already been created: a female version of the SCPT has been made, still using occupational pictures.

Informal explorations with other types of pictures show promise for the design of additional versions which may access other policy self concepts. Much more systematic exploration of the effects of pictures upon the lists of elicited dimensions will have to be conducted before the possibilities and limitations of the method can be stated. In addition, for the procedure to be economical for widespread use and repeated uses, (in studying self development for example) attempts must be made to streamline the procedure and shorten the administration time. Two such attempts have been made, one involved modification for group administration by using a slide projector to show the pictures to a small group, the other aimed at reducing the time required for administration by reducing the number of pictures used and limiting the number of descriptors which the subject could apply to each picture. The group procedure worked quite successfully. The "short-form", however, was not a very successful experiment. It was discovered, for example, that using a small number of pictures (5) the procedure became very much less sensitive to differences between profiles. In order to achieve significance at or beyond the $p = 0.05$ level coefficients of agreement had to achieve a value of 0.90 or more. Also, scale intervals were greater; a single preference difference between matrices results in a μ-value difference of 0.20 as compared with 0.055 when using 9 pictures.

As for versions designed to access and profile other than occupation-related self concepts, no steps have yet been taken at this time in this direction although several are planned. For the researcher interested in other self concepts the possibilities for SCPT variations are limited only by the investigator's ingenuity, patience and purposes. The theory suggests that Policy Self Concepts will be related to significant *contexts* in the individual's life. In relation to these contexts, PSC's function as broad guides to the relating of self to situations within the particular context concerned. Thus, by selecting pictures with a relevant contextual bias, the investigator should be able to cause the desired PSC's to be called into functional primacy as the tacit knowing basis *from* which the subject attends *to* or projects *into* the stimulus situations. That is, he creates a contextual "response set."

The theoretical model does not predict the specifics of either contexts or policy self contexts. That is, it does not predict that "Self-as-Republican (or Socialist)" will attain PSC status while "Self-as-Amateur Artist" will not. It does not provide detailed expectations for the content or the psycho-semantics of a PSC. For example, even if it is reasonable to expect "Self-as-Counselor" to be a PSC for a given individual, the theory does not predict what psycho-semantics or what personality dimensions to expect as the important dimensions of that self concept. These, or course, are what the projective portion of the procedures is designed to uncover and bring into specifiability.

However, certain hypotheses may be stated, which may be of help to the investigator who wishes to create his own version of the SCPT for a particular study. For instance, sociological and socio-psychological theories and data suggest that in a particular culture or subculture, organization or group, there are structural, functional and normative expectations and constraints which influence the probability that a particular type of role concept would be important or not important. In most societies there is a division of labor on the basis of sex. The extent of the social consequences of this differentiation vary from culture to culture. The probability of the individual's achieving a particular status or position, prestige or authority, for example, may be influenced by his/her sex status. Vertical and horizontal social mobility may also be affected.

Child-rearing practices, etiquette and morals will frequently take account of, and probably perpetuate, the sex distinctions. In view of the social importance of the sex role we might reasonably expect the self concept "Self-as-Male/Female" to achieve at least PSC status, and probably CSC status in time. If such characteristics as Red Hair, Artistic Ability, or Neuroticism are socially valued and come to have structural or functional significance we might expect related self concepts to achieve PSC status.[10]

The process of transmitting social/cultural values and concepts is, at best, imprecise. The idiosyncratic needs, aspirations, experiences and abilities, etc., of the individual initially guarantee that the details of the psycho-semantics underlying a particular, defined PSC (such as "Self-as-Teacher" or "Self-as-Routing machine operator") cannot be predicted. Certain dimensions, those sanctioned strongly in the defined context, may be expected to feature in the PSC in some form perhaps, but it is not possible to predict all the dimensions that may have become significant to the individual above and beyond these "high expectancy" ones. It is for this reason that the PSC associated with a given social role or position may be expected to differ, to a greater or lesser extent, from the role concept which the sociologist, role theorist, employer or supervisor might define, prescribe or describe. Thus, in building different versions of the SCPT procedure and using them in research, or in counseling and guidance, the investigator should be prepared to live with uncertainty in this sense and to find, perhaps, that although an individual can deliberately view himself in a given role for the purposes of the SCPT this does not necessarily mean that this is one of his policy self concepts. The investigator should be prepared to critically examine his assumptions and his purposes while he defines or specifies the types of PSC's he wants to examine. He should consider whether or not the pictures he uses really allow, and require, adequate expression or involvement of the PSC's. It could be that pictures which are inappropriate to the task in hand will, in effect,

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10. See Ruth F. Benedict. *Patterns of Culture*. Boston: Houghton Mifflin. 1954, and other anthropological writings concerned with cultural relativity of valued personality characteristics.

block out a particular PSC which really *is* relevant to the investigator's inquiries.

To round out this particular discussion let me list a few general classes of self concepts which suggest themselves as eligible for PSC status in a western, democratic, pluralistic, industrialized society such as ours. Whether they actually function as PSC's for a given individual depends, of course, upon how significant they are in his life. "Self-as-Male/Female", "Self-as-Son/Daughter", "Self-as-Husband/Wife", ". . .-as-Fiance/Fiancee", "Self-as-Father/Mother", " . . .-Brother/Sister" -- all these are examples of a group of sex-related self concepts; "Self-as-X", where X is an occupation or job title; "Self-as-Taxpayer", "Self-as-Intellectual", " . . .-as-Craftsman"; " . . .-as-Liberal/Democrat/Republican/Tory/Socialist/Communist" -- or any other political adherent; "Self-as-Catholic/Methodist/Jew" or any type of religious believer; "Self-as-an-Idea-Man", ". . .-as-persecuted" or ". . .-as-misunderstood by all". It will be noticed that a PSC does not necessarily have to correspond to a defined social role. It may relate to personality or character and may cut across or subsume many roles. Picture sets which might be relevant, contextually, to different self concepts could include such scenes as: a cocktail party, a discussion group, a family meal, family or social crisis, moments of intimacy, joy or sorrow and so on. The primary practical requirement which should be met is that a relevant individual in the picture (a male or a female) be visually-prominent so that the subject can be clear as to which individual he/she is focusing upon and comparing, when the time comes.

Studying a Complex Self System

Since the arguments for the complexity of the self system and the self process might seem to make their study an arduous and far-off task, it is worthwhile noting here that steps may be taken in that direction quite easily and soon. Once several versions of the SCPT have been developed which enable several aspects of self system to be studied it is only a matter of organization and time before those several versions may be used by the same investigator for a single person. It would then be possible to determine whether similar dimensions recur in connection

with several different PSC's -- whether, in fact, this is the rule or the exception. Are some PSC's within a given self-system better developed and organized or more differentiated from others or more internally integrated than others?[11] Will canonical correlation, factor analysis or similar statistical procedures allow the character of core self concepts to be inferred? Could the overall "regnancy" or primacy of one PSC vis-a-vis others in the self system be demonstrated by these means? Perhaps longitudinal studies using the SCPT will provide us with a means of monitoring changes in self-concept and of studying developmental aspects of self process. Certainly the SCPT should enhance our ability to pinpoint causes of maladjustments or dissatisfactions in occupation such as difficulties in adjusting to roles or expectation which are incompatible with deep rooted PSC's or CSC's. The SCPT could be equally useful in clinical, educational, marital or personal counseling and guidance or in education.

Speaking very tentatively, as an outsider, it seems that the SCPT might find application in clinical and psychiatric work related to personality breakdown or dissociation. For example, it is probably reasonable to expect, in the 'normal', 'healthy' self-system, important dimensions which cut across or are common to several PSC's. Although it is also reasonable to expect to find some dimensions being almost exclusively associated with individual PSC's, we might expect common dimensions to emerge, reflecting the integrations and inter-relationships within self-system. If the individual develops PSC's which are unintegrated and dissociated from the rest of the self system, islands of individuality or independence, it seems reasonable to suppose that complications will develop sooner or later. It is also probable that the SCPT will be sensitive enough to be able to detect such splintering.

Another possible application: perhaps the contrasting personality "phases" in the manic-depressive psychosis or in the so-called "split" or "multiple" personality may be profiled and tracked using the SCPT in the way that the Semantic differential has been used, but using the individual's own terms and dimensions rather than dimensions factor analyzed out of group data.

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11. Questions like these, and others, are raised by Super (1963) and may be answerable, to some degree, with the use of this procedure.

Educating by Heuristics

Throughout the above discussions the terms 'studying', 'investigating' and 'examining' have been used quite freely without qualification. Now it is time to qualify. This procedure has been designed in an attempt to re-establish the individual, as an *individual*, in assessment and evaluation procedures. A great deal of effort has been invested in the attempt to preserve individuality and idiosyncrasy which, after all, stamp the individual as unique. In the counseling or guidance situation, it is the unique individual who is client, not an abstracted and generalized, hypothetical "average guy", with fuzzy edges denoted by standard deviations or probability coefficients. This real individual is quite definitely bounded -- by his needs and purposes, his hopes and fears, his factual knowledge and his tacit knowings, his skills and his emotional inclinations, as well as many other factors -- even though he is in a process of continual change.

We have argued, earlier, that the outsider's view of another's self concept is *not* the self concept. In light of such arguments, this procedure was devised such that the individual could specify, in his own idiosyncratic terms, the dimensions/concepts which have functional importance within his system of self knowings and then to enable him to demonstrate how these dimensions are represented, contribute to, or participate in, his various self knowings. To remain consistent with the principles which underlie the procedure, I must now suggest (in fact, urge) that the individual be encouraged to participate in the profiling and interpretation phases of the procedure -- especially when the procedure is being used to further the processes of counseling, guidance or education.

It has been found in practice that the individual often has a much better understanding of the relationships which maintain between various profiles than the investigator does. This, of course, is not surprising. The individual is an expert on himself in a way that no other person, however well qualified, can be. He knows, both tacitly and specifiably, the feelings, tensions, congruences and incongruences within self. He may never have considered self, explicitly, in quite such a systematic or objective fashion, but once he does he is in a very good position to understand what he sees. Functioning as a co-investigator this expertise may

be invaluable -- as a "gagged" subject it can be of no use.

On the other hand, the experience of plotting and interpreting, seeing the profiles emerge and develop, is an extremely insight-provoking one. It is very different from that of looking at a profile sheet on which a mass of color-coded symbols and lines has already been drawn. Getting used to the visual and conceptual complexity of the completed profile requires time and experience. Subjects who were asked to assist in profiling were much more satisfied with the overall results of the procedure than those who were shown their completed profiles. The co-plotters felt that they acquired a much better understanding of the profile *and* of themselves as a result. In a few cases, subjects were able to interpret characteristics which were puzzling to this investigator with his lack of tacit knowledge of the psycho-semantics which gave rise to the data. As an heuristic device for provoking or achieving insights into self process, the Self Concepts Profiling Technique promises to have considerable value.

Technical Questions and Further Research

Bearing in mind that the procedure described in this report is still considered to be a prototype version, there are many technical questions which must be considered. Questions concerning validity and reliability figure prominently, of course. At this time, a method for testing reliability which involves a combined 'split-halves' and 'equivalent-forms' approach, is being explored and elaborated. This will be applied to the projective phase of the SCPT. Test-retest studies should be conducted with this projective phase, as well as with the procedure as a whole.

Validity studies are likely to continue for some time. It will be important to seek suitable independent criteria against which to evaluate these studies.

At the moment it seems somewhat paradoxical to talk of standardizing and norming this particular instrument, but this may be possible given some creative ideas from somewhere.

Other questions which suggest themselves include:

i. How picture-specific are the responses, and hence the dimensions elicited?

ii. Would the addition of more pictures in the *projective* phase produce any more valid and reliable dimension lists?

iii. If sets of stimuli with differing contextual biases are prepared for different self concepts, what will be the effect of having *different* individuals depicted in each set, as compared to having the *same* 9 individuals shown in different contexts?

iv. Also, if the *same* 9 individuals are shown in different contexts might it not be possible that recall, of what has previously been said about them, may inhibit the expression of new, context relevant comments? In other words, should we expect the contexts to exercise greater influence upon the dimensions elicited than do the perceived personalities? (Perhaps if the personalities are kept constant across contexts we might expect a small, though noticeable increase in their effect while contexts continued to exercise the greatest influence.)

v. Would it be reasonable to suppose that having once established a "personality" for a person in one context (picture set) the subject would be somewhat consistent in describing that same personality's expression in a different context?

These are a few of the questions yet to be answered in relation to both the procedure and the content and dynamics of self process and its behavioral expressions which might be explored with the help of the self concepts profiling technique.

SUMMARY

A need existed for both a theory of self processes and a procedure or technique for investigating self processes. Projective techniques seemed appropriate to the problem of handling such highly subjective material, except insofar as they usually imposed external logic and rationale upon the data during analysis and coding of responses.

In light of his particular theoretical viewpoint the writer decided to construct a procedure in which the subject himself was responsible for categorizing and analyzing his own responses to the stimuli. Thus, although Liggett (1957) had previously linked the projective and paired-comparisons methods, O'Mahoney consolidates and extends this idea.

The pictorial stimuli used in the prototype version of the SCPT comprise 9 pictures of male adults in ambiguous work settings. The self concepts to be examined are five occupational and occupationally-relevant self concepts: "Self-as-a-person-at-work", "The Ideal Person for my Job", "My Ideal Job", "Ideal-Self" and "Self-as-a-person-in General".

The procedure has two phases. During the first, projective phase, the subject describes the personality, character and temperament of each person shown in the pictures. He then content-analyzes his own responses for recurrent themes and concepts and produces a list of dimensionalized concepts which, he is satisfied, represent the more important dimensions in terms of which he differentiates people one from another and from Self.

In the second phase, the paired-comparisons procedure, the pictures are presented in such a way that each is paired once with every other picture. This entails 36 pairings -- a "sorting set" or "sort". Throughout a given sorting set the subject applies *one* of his dimension/concepts to the pairs, each time making a judgment as to which of the two people he perceives as closest to the positive pole of his dimension. His judgments are recorded in a response matrix. A response matrix is obtained for each dimension on the list. Next, the subject is asked to apply the five self related concepts to the paired pictures, producing five more response matrices.

The statistics associated with the paired comparisons technique allow response matrices to be analyzed and compared producing coefficients of consistence and agreement. The coefficient of agreement allows the relationships between a self concept sort and each dimension concept sort to be plotted in profile form. Thus each self concept may be profiled in terms of the N dimensions on the subject's list, allowing comparisons to be made and convergences and divergences to be noted. The agreement coefficient also allows self concept response matrices to be compared directly yielding a single numerical index of the extent of agreement between any two or more self concepts.

The feeling-tone, or affect quality, of the profiled concepts may be evaluated either with reference to a given dimension or overall. This allows vocation, with reference to specific occupations, to be empirically investigated -- vocation being operationally defined as "the strength and the value of the sense of fitness which exists when the subject brings knowings of self into relation with knowings of the world in the context of a specific occupation or job." Initial results indicate that the empirically derived expressions of vocation correspond well with ratings made by judges.

It is concluded that the Self Concepts Profiling Technique has potential value in counseling and guidance, both in diagnostic and in an educative role, and may also be useful in educational and clinical contexts as well as in research. It seems to have the capability to deal with the complexity of self concept systems with fewer constraints being imposed upon the phenomena than is the case with other instruments. The construction of additional versions of the procedure for other aspects of the self-system than the vocationally relevant would greatly increase scope and effectiveness of the procedure as a tool for investigating self processes.

Using the coefficient of agreement statistic, repeated applications of a self concept to the picture sets may be compared. Thus, the reliability of at least part of the procedure may be checked. Indications to date are to the effect that the procedure does reliably profile self concepts in terms of the dimension-concepts defined by the subject. Research into the reliability of the projective phase, in eliciting the *same* dimensions, from one application to another, is required and is planned.

The same statistical technique allows the inter-relatedness of different self concepts to be examined. As a result it should be possible to look at such features of self concept systems as: integration, harmony, functional pre-eminence or dominance and other such meta-dimensions as discusses by Super (1963).

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